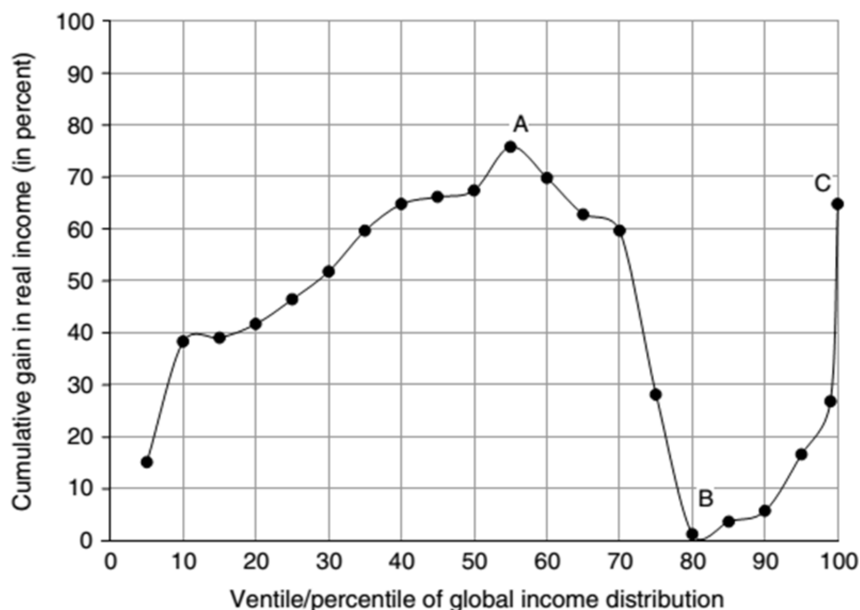
Globalization and global inequality

1. **The gains from globalization are not evenly distributed: relative gains.** The *elephant curve* on the right shows the percentual gain in real per capita income between 1988 and 2008 (the high globalization period). The horizontal axis ranks people in the world from the poorest (extreme left) to the richest (extreme right). The maximum gain (point A) is near the median (people slightly above the 50th percentile of the global income distribution) and for the richest (the top 1%, point C). The minimum gain (point B) corresponds to the global 80th percentile (most of it in the lower middle class of the rich countries).

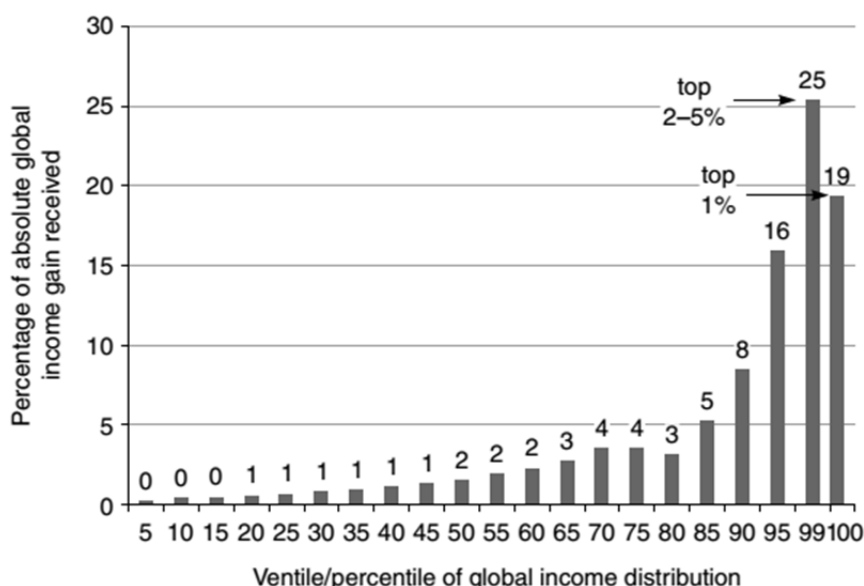


2. **Beneficiaries of globalization (1988-2008).** (1) People between the 40th and the 60th percentile (1/5 of the world population). Most members in this group belong to Asian economies (China, India, Thailand, Vietnam, and Indonesia): the emerging global middle class. Hence, the Asian poor and middle classes define the great winners of globalization. (2) The global very rich (the global plutocrats).

3. **The least benefited from globalization (1988-2008).** (1) The global poor (located in the countries that are not rich). (2) The global lower middle classes (most of whom live in the rich countries). Thus, the great losers of globalization are the lower middle classes and the poorer segments of the rich world.

4. **The gains from globalization are not evenly distributed: absolute gains.** The chart on the right shows how the total increment in income between 1988 and 2008 has been distributed by global income level. It indicates that around the 44% of all the gains have been received by the richest 5% of the world population.

5. **The gains from globalization are not evenly distributed: absolute gains.** The chart on the right shows how the total increment in income between 1988 and 2008 has been distributed, by global income level. It indicates that around the 44% of all the gains has been received by the richest 5% of the world population (the top 1% receiving 19% of the income rise). The other beneficiaries of globalization (the emerging global middle class) pocketed only between 2 and 4%.

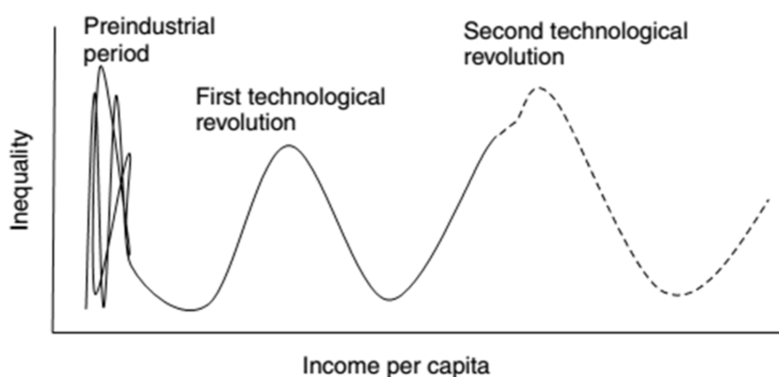


6. **Top 1%.** According to Oxfam (16 January 2017), the eight richest men in the world together have the same amount of wealth ($426 billion = 0.16% of the world's wealth) as the poorest 50% of the world population.
https://www.oxfamamerica.org/static/media/files/170105_bn-economyfor-99-percent-160117_embargo-en.pdf

7. **$426 billion.** Spending one dollar per second ($86,400 per day), it would take more than 13,500 years to exhaust $426 billion.

8. **The Kuznets curve (or hypothesis).** It is the conjecture (by Simon Kuznets) relating the level of economic inequality with the level of real income. Graphically, it takes the form an inverted U: for low income levels, inequality is low; as income grows, inequality increases; and, from some sufficiently high income level on, inequality decreases. However, the recent experience of the advanced economies shows that inequality need not decrease with development

9. **The Kuznets wave (or cycle).** It is the conjecture (Branko Milanović) that there are waves of alternating increases and decreases in inequality in time (as income increases). (1) Before the Industrial Revolution inequality undulated around a fixed average income level (in a Malthusian cycle the source of the fluctuation in inequality is demographic: an income rise lower inequality and triggers a population increase among the poor; in the presence of a decreasing marginal productivity of labour, a larger population leads to a reduction in productivity and a fall in income, which increases inequality and moderates population growth). (2) The Industrial Revolution made possible a sustained growth of income and also an increase in inequality. First, because higher incomes create the potential for more inequality. Second, because structural changes in the economy (urbanization, rising importance of the industrial sector) drove up inequality. Inequality eventually decreased when the supply of more educated workers increased and economic policies responded to pressures to correct the uneveness of the distribution of income (the welfare state). Military conflicts and political revolutions (themselves often consequences of excessive inequality) also contributed to the reduction in inequality. The 'Great Leveling' refers to the reduction in inequality in the richer countries between 1945 and 1980. (3) A new technological revolution affected the rich countries in the 1980s (digital revolution) by widening income disparities. The new technologies rewarded the more skilled workers, pushed up the return to capital and made the less skilled worker suffer the strong competition from China and India. The service sector increased in importance, with many of the new jobs not requiring much qualification and being badly paid. Moreover, pro-rich economic policies tended to be universally adopted.



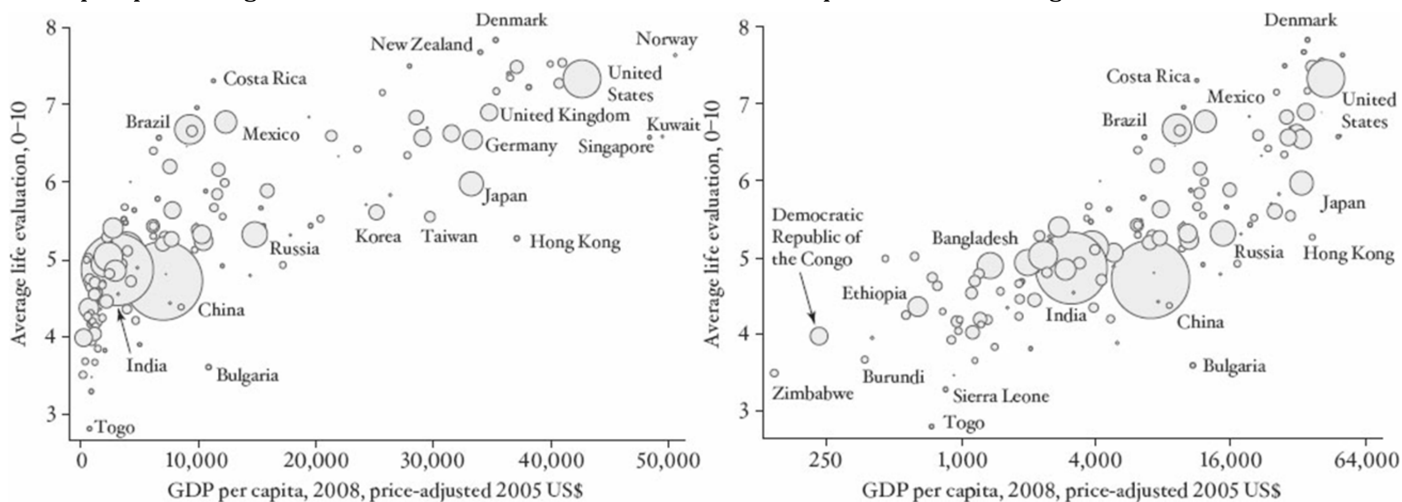
10. **How to reduce inequality.** Extreme inequality can be solved through the tax system. The mechanisms involved in the first reduction were increased taxation, social transfers, hyperinflation, nationalization of property and wars. Globalization makes more difficult to raise taxation on capital income: it is harder to tax a mobile capital. The rich are also resistant to the application of redistributive measures (neoliberalism and trickle-down economics). And one of the characteristics of globalization is that the winner takes all.

Milanović, Branko (2016): Global inequality: A new approach for the age of globalization, Harvard University Press, Cambridge, MA.

11. **The Great Escape (Angus Deaton).** The expression, taken from the movie about prisoners of war in World War II (directed by John Sturges, 1960), refers to the fact that, thanks to the material progress initiated in the Industrial Revolution, large parts of humanity have escaped from poverty, disease and deprivation. But episodes of progress are simultaneously episodes of growing inequality. "The greatest escape in human history is the escape from poverty and death."

12. **Life evaluation and GDP per capita.** The two charts below shows average life evaluation against GDP per capita (average income). The left chart shows the positive correlation between life satisfaction and income levels. It may give the wrong impression that, after around $10,000, additional income does not help to improve much one's life. The same information is presented on the right chart on a log scale for GDP per

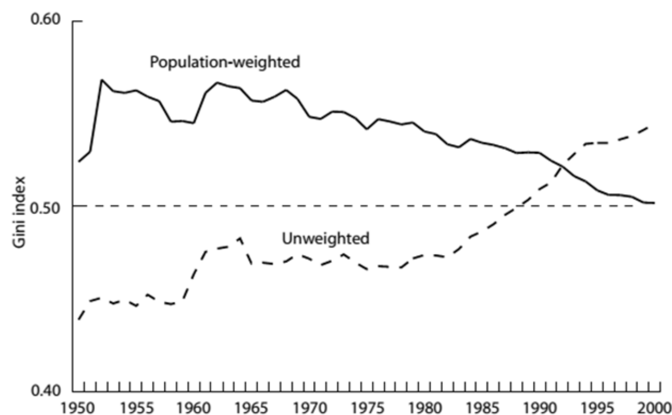
capita (each tick on the horizontal axis multiplies income by four: equal distances are not equal amount increases in income but equal percentage increases in income). Now it appears that income always matters: equal percentage differences in income are correlated with equal absolute changes in life evaluation.



Deaton, Angus (2013): The Great Escape: Health, wealth, and the origins of inequality

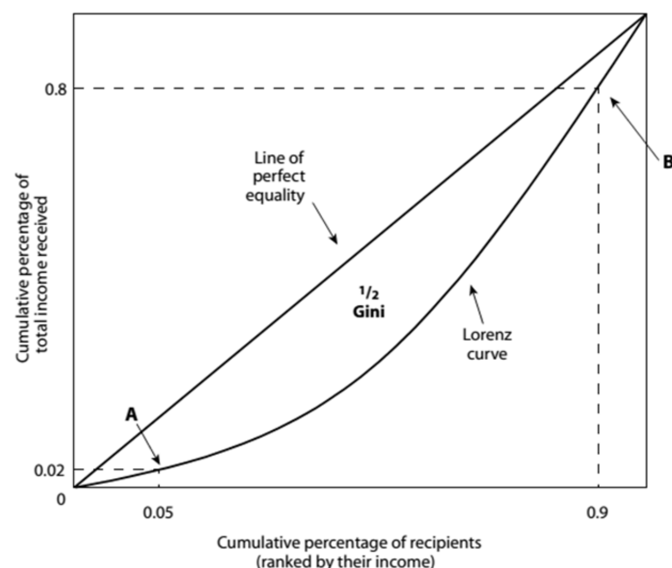
13. **Concept 1 of inequality: unweighted international inequality.** Concept 1 associates with each country a representative individual, who is assigned the country's GDP per capita. Concept 1 actually compares countries, with all of them given the same weight.

14. **Concept 2 of inequality: population-weighted international inequality.** As Concept 1, it is assumed that every person in a country receives the same income (the country's GDP per capita), but now the number of representative individuals attributed to each country depends on the country's size. Concept 2 ignores inequality within countries.

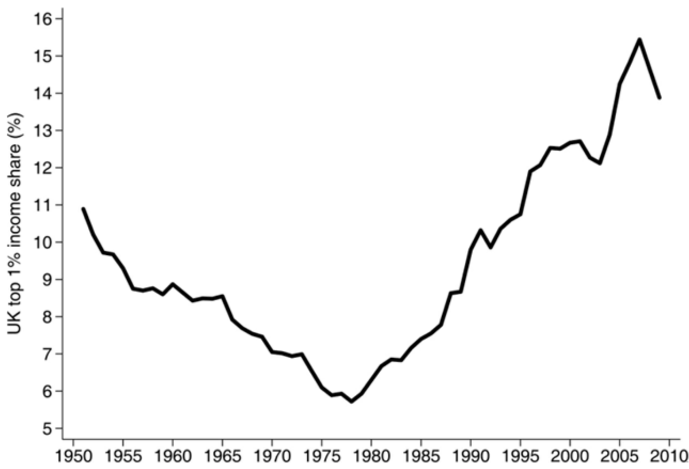


15. **Concept 3 of inequality: individual international inequality.** In Concept 3 inequality measures are determined directly on individuals, all individuals in the world, with each individual counting the same.

16. **Divergent measures of inequality.** The chart on the right shows two interpretations of the same reality: according to Concept 1, international inequality has increased (upward trend) in the last decades; whereas Concept 2 suggests a fall (downward trend). The difference: the behaviour of China and India (reduction in inequality essentially limited to a few big countries).



17. **Gini coefficient (Corrado Gini).** It is a measure of inequality (and income distribution) going from 0 (maximum equality) to 1 (maximum inequality: a single individual receives all the income). The Gini index is the coefficient in percentages. Graphically, it is (twice) the area between the line of perfect equality (the main diagonal) and the Lorenz curve (which charts the proportion of total income received by the cumulative proportion of recipients ranked by their per capita income from poorer to richer; in the graph on the right, point A means that the poorer 5% of individuals receive the 2% of total income).



Milanović, Branko (2007): Worlds apart: Measuring International and Global Inequality, Princeton University Press, Princeton, NJ.

The rise of the super-rich in the UK (McQuaig, Linda; Neil Brooks (2013): *The trouble with billionaries: How the super-rich hijacked the world (and how we can take it back)*)

↵

18. Piketty's $r > g$ theory of inequality: the fundamental force of divergence. The symbol r stands for an average rate of return on holdings of wealth over long periods (average return of stocks, corporate bonds, savings accounts, government bonds, real estate, other financial assets…). The symbol g is the GDP growth rate and can be interpreted as the average speed at which incomes in a economy grow. Piketty's theory (the fundamental inequality of capitalism) is that inequality increases when r grows faster than g. With $r > g$, wealth grows more than income; and as wealth is distributed more unequally than income, a faster growth of wealth with respect to the growth of income contributes to an increase in inequality: the rewards to the owners of wealth are larger than the income that, on average, generates the economy.

$$Y = W + P$$

aggregate income = salaries + profits

$$r = \frac{P}{K}$$

rate of return = profits / capital

$$K' = K + I$$

capital tomorrow = capital today + investment

$$I = s \cdot Y$$

investment = savings rate · income

$$Y' = (1 + g) \cdot Y$$

income tomorrow = (1 + income growth rate)· income today

Let $\alpha = \frac{P}{Y}$, $\beta = \frac{K}{Y}$ and $Y = \frac{Y}{L} \cdot L$, where L is population and $\frac{Y}{L}$ is average productivity. Therefore, $g \approx \lambda + n$: income growth is approximately equal to productivity growth plus population growth. As $r = \frac{P}{Y} \cdot \frac{Y}{K}$, it follows that $r = \alpha/\beta$ or, equivalently,

$$\alpha = r \cdot \beta$$

which Piketty calls "the first fundamental law of capitalism". Moreover,

$$\frac{K'}{Y'} = \frac{K + I}{Y'} = \frac{K}{Y'} + \frac{I}{Y'} = \frac{K}{(1 + g) \cdot Y} + \frac{s \cdot Y}{(1 + g) \cdot Y} = \frac{1}{1 + g} \cdot \frac{K}{Y} + \frac{s}{1 + g}.$$

At a stationary state, $\frac{K'}{Y'} = \frac{K}{Y} = \beta$. Hence, solving for β, it is obtained Piketty's "second fundamental law of capitalism" or dynamic law of accumulation:

$$\beta = \frac{s}{g} \approx \frac{s}{\lambda + n}$$

A falling share $\frac{W}{Y}$ of wages in income can be interpreted as a rise in inequality: capital gets an increasing larger portion of income. From $Y = W + P$, $1 = \frac{W}{Y} + \frac{P}{Y} = \frac{W}{Y} + \alpha$. As a result,

$$\frac{W}{Y} = 1 - \alpha = 1 - r \cdot \beta = 1 - \frac{s \cdot r}{g} \approx 1 - \frac{s \cdot r}{\lambda + n}.$$

The above equation indicates that the wage share $\frac{W}{Y}$ decreases (inequality goes up) when:

(i) the savings rate s rises;
(ii) the rate of return r rises;
(iii) the rate of growth λ of labour productivity falls;
(iv) the rate of growth n of population falls; or
(v) the rate of growth g of the economy declines (this is a combination of (iii) and (iv)).

19. Forces of convergence and divergence of market economies. With a constant s, the dynamics of inequality is explained by the evolution of the private rate of return r on capital and the rate of growth g of income. Having $r > g$ implies that wealth accumulated in the past grows faster than income (and wages). That capital tends to expand itself more rapidly than the economy is the principal force of divergence (inequality). The diffusion of knowledge and skills is a powerful force of convergence (and social stability).

20. Globalization and country divergence. Globalization seems to have favoured so far the forces of divergence: the narrowing of income inequality between countries has been relatively small (look at the Earth at night: light = prosperity; darkness = poverty).

21. Piketty's claims. (1) The growth (or contraction) of an economy's wealth-to-annual-income ratio ($\beta = K/Y$) is the quotient s/g between the net savings (the accumulation rate) and the economy's growth rate. (2) Wealth is eventually concentrated in the hands of a small group: the larger β, the more unequal the distribution of wealth. (3) An unequal distribution of income is the consequence of an unequal distribution of wealth: the privileged small group will steer political decisions on their behalf, to prevent the rate of profit from falling. (4) The privileges of the small group will be preserved through inheritance. (5) When wealth is inherited, the small privileged group will possess great influence (politically, economically, socioculturally) that will most likely be exercised to the detriment of the majority. "The process by which wealth is accumulated and distributed contains powerful forces pushing toward divergence, or at any rate toward an extremely high level of inequality (…) It is possible to imagine public institutions and policies that would counter the effects of this implacable logic: for instance, a progressive global tax on capital. But establishing such institutions and policies would require a considerable degree of international coordination." (Piketty, 2014, p. 27)

22. The three recent epochs of capitalism. (1) The Belle Epoch (1880–1914): the first era of global financial capitalism; (2) the Golden Age (1945–1975) of capitalism; (3) the Neoliberal Era (1980–2017): the second era of global financial capitalism. The Belle Epoch, the product of the cumulative development of capitalism, collapsed: two world wars with a Great Depression in between. By comparing the Belle Epoch with the Neoliberal Era, Piketty anticipates the persistence of a low-growth regime and a traumatic end to the Neoliberal Era (global wars and economic crises), unless there is a global political peaceful reorganization that stops the forces that, through the progressive accumulation of capital in fewer hands, is exacerbating class conflict. As in the Golden Age, an interventionist welfare state (at a global scale) is the needed counterbalancing force, to temper the forces of global financialization, even at the price of sacrificing economic growth.

Piketty, Thomas (2014): Capital in the twenty-first century, Belknap Press, Cambridge, MA.

Dickens, Edwin (2015): "Piketty's Capital in the Twenty-First Century: A review essay" Review of Political Economy 27(2), 230– 239

López-Bernardo, Javier; Félix López-Martínez; Engelbert Stockhammer (2016): "A Post-Keynesian Response to Piketty's 'Fundamental Contradiction of Capitalism'," Review of Political Economy 28 (2), 190-204.

Thompson, William R.; Rafael Reuveny (2010): Limits to globalization : North-South divergence, Routledge, London and New York

23. A new country: Richistan. "(In the US) The rich weren't just getting richer; they were becoming financial foreigners, creating their own country within a country, their own society within a society, and their economy within an economy. They were creating Richistan." There are four classes in Richistan.

(1) **Lower Richistan**. Some 7 million households with net worth $1-10 m. "Most of them are welleducated, work-a-day professionals: corporate executives, doctors, lawyers, bankers, designers, analysts and money managers. More than half their wealth is derived from income, with another third coming from investment returns. In an increasingly global, hightech, finance-oriented economy, Lower Richistanis have benefited from the growing demand for highly educated workers and rising pay at the top."

(2) **Middle Richistan**. It includes more than 2 million households, with net worth between $10 m and $100 m. "Most Middle Richistanis make their money from salaries, small businesses or investment returns. As you move from Lower to Upper Richistan, however, the number of entrepreneurs and business owners starts to increase. Middle Richistan has twice as many entrepreneurs as Lower Richistan, showing that the surest path to big wealth is starting your own company and selling it."

(3) **Upper Richistan**. It includes thousands of households, with net worth at least $100 m. "Most made their money by starting their own companies and selling them, although CEOs and money managers (especially hedge funders) are rapidly joining the ranks. The lives of Upper Richistanis have become incredibly complicated. To run them, they're creating 'family offices'—large companies dedicated entirely to serving a family's day-to-day needs, from investments and legal work to travel plans and hiring house staff (...) When you live in Upper Richistan, your entire philosophy of money changes. You realize that you can't possibly spend all of your fortune, or even part of it, in your lifetime and that your money will probably grow over the years even if you spend lavishly. So Upper Richistanis plan their finances for the next hundred years."

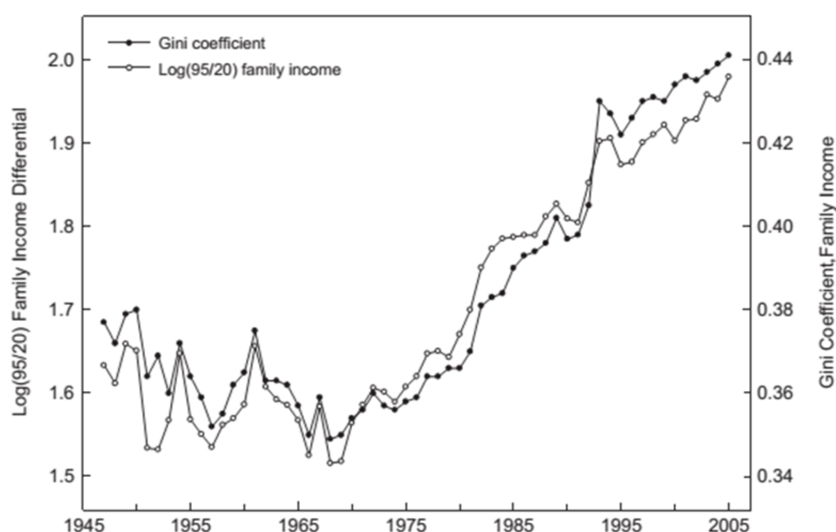
(4) **Billionaireville**. With 13 inhabitants in 1985, it had more than 400 in 2006. "The personal lives of billionaires are more like companies. Their homes are like hotels—sprawling campuses with their own logos, purchasing budgets and legions of staff. Ask a billionaire for his or her bank statement and you'll get a five-level flowchart of interlocking subsidiaries, holding companies, investment funds and foundations."

Frank, Robert L. (2007): Richistan : A journey through the American wealth boom and the lives of the new rich, Crown Publishers, New York.

24. Standard view of human capital and development. At least illustrated by the American experience in the 20th century, given certain institutional preconditions:

↑investment in education → ↑level of technology and productivity → ↑economic growth → ↑standard of living

25. Connection between technological change and inequality through educational progress. Nothing guarantees a fair distribution of the results of economic growth: its benefits may be inequally distributed, so the higher standard of living need not be generally enjoyed. Technological advances tend to increase the demand for more educated (high-skilled) workers, whose earnings would increase in comparison with the earning of the less educated (low-skilled) workers. Economic inequality would then rise if the proportion of the more educated with respect to less educated remains approximately constant (or if the changes in the supply of workers in each category do not offset the changes in the demand for those workers). Hence, technological progress would widen the income gap

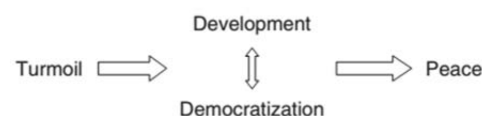


between more educated and less educated workers (skill-biased technological progress). Supply side considerations may alter this conclusion: a large increase in the supply of more educated workers could neutralize the increase in earnings of this group relative to the earnings of the less educated group.

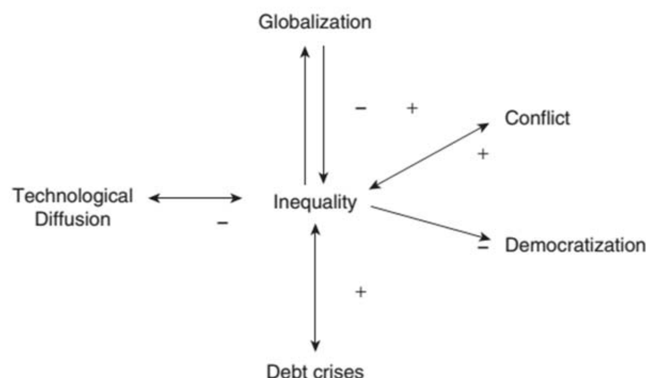
26. **Race between technology and education.** Apparently, in the US, a rising supply of educated workers (supply of high skills) outstripped the additional demand generated by technological progress: during the first three-quarters of the 20th century higher incomes coincided with a decline in inequality (education raced ahead of technology). In the last two decades, technology raced ahead of education and inequality went up (educational slowdown).

Goldin, Claudia Dale; Lawrence F. Katz (2008): The race between education and technology, The Belknap Press of Harvard University Press, Cambridge, MA.

27. **The liberal, optimistic, convergent view of the future.** Though the world is divided in peaceful and democratic regions and zones in conflict, the peaceful regions will remain prosperous and stable while the zones of turmoil will eventually develop and democratize to become members of the peaceful zone. It is just a matter that the poor economies emulate the rich ones. Economic convergence will gradually contract the turmoil zone.



28. **The North-South gap.** So far there is no solid evidence of a substantial move towards global convergence (apart from already affluent economies). The world still appears divided between a minority of rich countries (the pacific North) and a majority of poor or semi-poor countries (the conflictual South). The sketch on the right (taken from Thompson and Reuveny, 2010, p. 3) summarizes the basic processes that contribute to preserve the North-South divide ('–' means negative relationship, '+' positive relationship).



29. **The Great Divergence.** It is an expression that refers to the prosperity gap (more or less apparent after the Industrial Revolution) between 'the West' (western European countries and its offshoots, US, Canada, Australia and New Zealand) and 'the Rest'. The divergence was created by countries in the West entering before the current regime of modern economic growth in which GDP per capita grows continously to a great extent thanks to continuous technological advances applied in production processes. One explanation of the gap is that the West followed a capital-intensive path of development, whereas the Rest (specifically, East Asian economies) chose instead a labour-intensive path. Pomeranz (2000) attributes the different choice to mere accident: the fact that the West had access to the New World resources. A parallel interpretation is that the members of the West had the chance to globalize their economies first (first mover advantage).

Pomeranz, Kenneth (2000): The great divergence: China, Europe, and the making of the modern world economy, Princeton University Press, Princeton, NJ.

30. **Gerschenkron's virtue of backwardness.** Gerschenkron's study of the comparative history of industrialization in Europe led him to question the view that development gaps have to be eliminated by having the backward economies follow the path of the pioneering economies. His argument is that, once an outcome exists (industrialization, development) it is not necessarily the best policy to replicate the original way in which the outcome was achieved. The process involved are different from the one experienced by the now rich economies (speed of industrial growth, new organizational structures, novel industrial techniques and technologies…). He claims that themore backward (the less developed) an economy, the faster its industrialization can/will be, the more it will be based on the capital industry (instead of the consumer goods industry), the larger the scale of plants, the less significant the role of agriculture to help industrial development and the more important the institutions in promoting growth. His analysis emphasizes the advantages of the late-comer.

Gerschenkron, Alexander (1962): Economic backwardness in historical perspective, Harvard University Press , Cambridge, MA.

31. **Globalization is an asymmetric process (leading to differentiated outcomes).** Rich countries are in a better disposition to rip the benefits of globalization. The preconditions for the success of globalization are more likely to are more easily satisfied by the rich countries: physical, educational and social infrastructure (transportation networks, human skills, trust, political institutions…). These preconditions are also necessary to produce high-reputation goods (positional goods: trade in services, decommodified goods, currencies), the type of goods that are becoming increasingly important to benefit from globalization. Reputation is the key competitive factor in a globalized economy and is not subject to the traditional analysis based on comparative advantages. There is an entry cost to benefit from globalization that the poorer countries cannot pay. In view of this, globalization seems to bestow its benefits asymmetrically, delivering disproportional trade benefits to the richer countries.

32. **The new poverty trap of current globalization.** This trap is the result of lacking adequate physical infrastructures, capital stock, educational achievement, appropriate institutions, governance skills and ability to control the domestic macroeconomic fundamentals in the presence of free flows of international capital. It also contributes to the trap the enforcement of an institutional international order that favours the rich: transformation of global competition into positional competition (more importance of the trade in services and decommodified goods) and legal architecture that reinforces the leaders in the positional competition (protection to intellectual property rights and to the free mobility of capital).

33. **Two views on the benefits and costs of globalization.** Critics: globalization has exploited people in developing countries, caused massive disruptions to their lives and produced few benefits in return. Supporters: reductions in poverty achieved by countries which have embraced integration with the world economy, with China and India being the current poster-countries of such success

Yotopoulos, Pan A.; Donato Romano (eds) (2007): The asymmetries of globalization, Routledge, London and New York (especially chapter 10: “What have we learned about globalization?”).

34. Links between economic globalization, economic growth/development, inequality and poverty.

Orthodox view

$\uparrow$economic globalization $\rightarrow$ $\uparrow$economic growth/development $\rightarrow$ $\downarrow$inequality $\rightarrow$ $\downarrow$poverty $\rightarrow$ $\uparrow$economic globalization…

Critical view

$\uparrow$economic globalization $\rightarrow$ $\downarrow$development $\rightarrow$ $\uparrow$inequality $\rightarrow$ $\uparrow$poverty

35. **Some myths. Myth 1**: Inequality is a necessary counterpart of economic dynamism and competitiveness. According to this myth, rising inequality is an inevitable consequence of rapid economic growth (or a necessary condition for competitiveness). Policies that lower inequality, it is claimed, reduce the incentives to work hard and innovate. **Myth 2**: The best way to help the poor is to help the rich (“Equity needs growth”). **Myth 3**: Inequality is actually not a problem as long as extreme poverty is avoided and incomes are all rising (“the rising tide lifts all boats”). **Myth 4**: As pay is related to ability, rising inequality is just the result of increasing differences in people’s ability (I am paid more because I am worth it).

Sudhir Thomas Vadaketh; Donald Low (2014): Challenging the Singapore Consensus